

## ABSTRACT

A method for producing a fused silica glass containing titania includes synthesizing particles of silica and titania by delivering a mixture of a silica precursor and a titania precursor to a burner, growing a porous preform by successively  
5 depositing the particles on a deposition surface while rotating and translating the deposition surface relative to the burner, and consolidating the porous preform into a dense glass.